

SUMMARIES
OF
DIVISION OF SUBSISTENCE
RESEARCH PROJECTS
IN
NORTHWEST ALASKA

DIVISION OF SUBSISTENCE
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Northwest Subsistence

Budget Code: 11751503

Principal Investigators: James Magdanz

Cooperators: none

Funding Source: General Fund

Study Communities: Northwest Alaska (Nome Census Area, NW Arctic Borough)

Purposes and Objectives: This project code covers all tasks that are not part of a specific research project. Examples include: reviewing management plans, responding to requests for information, developing research projects and plans, seeking funding for projects, preparing materials for division staff committees, attending assorted staff and management meetings, participating in conferences or training, reading current literature, meeting with other researchers and community members, and responding to a wide range of administrative needs (budget projections, project summaries, time sheets, biweekly reports, inventory, data needs, office maintenance, position descriptions, hardware and software upgrades, etc.). Work related to Board of Fisheries and Board of Game is covered under another project code.

Methods: Various.

Status: Continuing and recurring.

Schedule/Milestones: Continuing and recurring.

Products: Varies.

Prepared by: James Magdanz

Northwest Public Service

Budget Code: 11751504

Principal Investigators: Susan Georgette

Cooperators: none

Funding Source: General Fund

Study Communities: Northwest Alaska (Nome Census Area, NW Arctic Borough)

Purposes and Objectives: This project code covers all tasks that are not part of a specific research project. Examples include: reviewing management plans, responding to requests for information, developing research projects and plans, seeking funding for projects, preparing materials for division staff committees, attending assorted staff and management meetings, participating in conferences or training, reading current literature, meeting with other researchers and community members, and responding to a wide range of administrative needs (budget projections, project summaries, time sheets, biweekly reports, inventory, data needs, office maintenance, position descriptions, hardware and software upgrades, etc.).

Methods: Various.

Status: Continuing and recurring.

Schedule/Milestones: Continuing and recurring.

Products: Varies.

Prepared by: Susan Georgette

Board Preparation

Budget Code: 11751507

Principal Investigators: James Magdanz

Cooperators: none

Funding Source: General Fund

Study Communities: Northwest Alaska (Nome Census Area, NW Arctic Borough)

Purposes and Objectives: This project code covers all tasks related to the Board of Fisheries, Board of Game, and Federal Subsistence Boards, from the preliminary identification of regulatory issues to the final presentation of data at a Board meeting. It includes attendance at advisory committee meetings, regional council meetings, and cooperative management meetings (e.g. Seward Peninsula Musk Ox Cooperators Group). It includes consultations on regulatory issues with other Department staff, other agency staff, and the public, including proposal development. Once proposals have been scheduled for deliberation, it includes the analysis of data relevant to proposals, preparation of board presentations, and publication of board reports. Occasionally, the Boards will ask staff to research a specific issue (e.g. implementation of Tier II fisheries) and prepare a report; that work would occur under this project also.

Methods: Various.

Status: Continuing and recurring.

Schedule/Milestones: Continuing and recurring.

Products: Board presentations, board reports, attendance at various public meetings, consultation with various agencies and organizations.

Prepared by: James Magdanz

Subsistence Salmon Harvests in Northwest Alaska

Principal Investigators: Susan Georgette, Bob Walker, and Dave Caylor

Cooperators: Division of Commercial Fisheries, Kawerak

Funding Source: Division of Commercial Fisheries

Study Communities: Stebbins, St. Michael, Unalakleet, Shaktoolik, Koyuk, Elim, Golovin, White Mountain, Teller, Brevig Mission, Noorvik, Kiana, Ambler, Shungnak, Kobuk, Noatak, and Kotzebue.

Purposes and Objectives: The purpose of this project is to annually document subsistence harvests of salmon in key communities in northwest Alaska. This information is an important tool in salmon management. The objectives of the project include: 1) collect harvest data that result in a total harvest estimate for subsistence salmon by species by community, and 2) compile information on gear types, participation rates, sharing, household size, and use of salmon for dog food.

Methods: Household surveys are conducted annually in 16 communities in October and November. One or two technicians are hired by the division to conduct the surveys, with the assistance of one or more residents in each community who are paid by Kawerak or, in some cases, by the National Park Service. The sample goal is 100% of households. In the regional center of Kotzebue, a mail-out postcard survey is typically used to assess salmon harvests. The survey information is entered and analyzed by the division's Information Management staff. Changes are occasionally made year-to-year in the survey instrument and in the study communities

Status: This is a recurring project, conducted annually since 1994. The surveys have been completed for the 2002 season, the data have been entered, and preliminary results are becoming available as of the end of March 2003. The Kotzebue Sound portion of the project operated somewhat differently this year: salmon surveys were combined with big game surveys in two communities, and no surveys were conducted in the other five communities.

Schedule/Milestones:	Data analysis completed	April 30, 2003
	Final report completed	June 30, 2003

Products: A final report with tables, charts, and a brief narrative summary will be prepared and distributed to study communities and regional organizations.

Prepared by: Susan Georgette

Subsistence Harvests in Northwest Alaska: Caribou and Other Big Game

Principal Investigator(s): Susan Georgette and Bob Walker

Cooperators: Maniilaq Association, Kawerak, National Park Service, and Division of Wildlife Conservation

Funding Source: Division of Wildlife Conservation and National Park Service

Study Communities: (In 2003) Noatak, Noorvik, Stebbins, and Unalakleet

Purposes and Objectives: The purpose of this project is to document subsistence harvests of caribou and other large game in GMUs 22 and 23 in northwest Alaska. Prior to this, no community-based information on caribou harvests was available for most communities in the core of the herd's range. The objectives of the project include: 1) document subsistence harvests of caribou and other wildlife in selected communities in Units 22 and 23; 2) employ local researchers to collect subsistence harvest information; and 3) provide opportunities for community and regional involvement in harvest reporting and wildlife management.

Methods: Household surveys are conducted annually in 2-6 selected communities in the region. The sample goal is 100% of households. In GMU 22, Wildlife Conservation staff conduct the field work, while Subsistence staff do the field work in GMU 23. In both areas, local research assistants are hired to assist with the surveys. The survey information is entered and analyzed by the division's Information Management staff. In general, different communities are selected each year for study, with the goal to survey each community in the region every 3-5 years. Data from this project and others are used by Wildlife Conservation to estimate an overall, range-wide harvest of Western Arctic caribou.

Status: This has been a recurring project, conducted annually since 1998. Surveys have been completed for the 2002-03 year in the GMU 23 study communities (Noatak and Noorvik), and are scheduled for early May in the GMU 22 study communities (Unalakleet and Stebbins).

Schedule/Milestones:	GMU 22 surveys	May 2003
	Data entry and analysis	May-June 2003
	Prepare final report	July-August 2003
	End of project	September 30, 2003

Products: A final report with tables, charts, and a brief narrative summary will be prepared and distributed to study communities and regional organizations. A one-page summary of project results will be mailed to all boxholders in the study communities.

Prepared by: Susan Georgette

Traditional Knowledge of Whitefish in Kotzebue Sound

Principal Investigator: Susan Georgette

Cooperators: Maniilaq Association and Selawik National Wildlife Refuge

Funding Source: Fisheries Information Services

Study Communities: Kotzebue, Noatak, Noorvik, and Selawik

Purposes and Objectives: This project addresses the need to document Iñupiaq knowledge of fish resources as the first step towards incorporating this knowledge into management. Whitefish are a key subsistence resource in the region, but one that has received little attention from researchers. The objectives of the study include: 1) collect Iñupiaq knowledge of whitefish; 2) generate maps depicting important whitefish habitat and subsistence fishing areas near study communities; 3) convert TEK information into a computer-searchable database; 4) provide experience to community residents in the collection of TEK; and 5) train Maniilaq Association staff and tribal staff in the use of the database.

Methods: Key respondent interviews are the primary data collection method. At least five to ten individuals are interviewed in each study community. Interviews are conducted using a semi-structured format outlining general areas of discussion. Local research assistants are hired to assist with the interviews. Information gathered through the interviews are entered into AskSam, a computerized, searchable database.

Status: This is the beginning of the second year of a two-year project. Field work is mostly complete in Selawik and Noatak, with a total of 22 individuals interviewed. Results of the interviews have been entered into Word documents but not yet into AskSam. Mapping has been less successful than hoped for. Photographs documenting whitefish harvest activities have been taken in Selawik in both the spring and winter fisheries. The second year of the project involves similar work in two additional communities, most likely Noorvik and Kotzebue.

Schedule/Milestones: Community approvals	April 1-June 30, 2003
Key respondent interviews	July 1-December 31, 2003
Prepare final report	December 1, 2003-March 31, 2004
End of project	April 30, 2004

Products: A progress report has been prepared summarizing research findings in Selawik. A final project report with maps will be prepared at the conclusion of the second year of research. A computer searchable database will also be produced.

Prepared by: Susan Georgette_

Local Knowledge of Whitefish in the Upper Kobuk River Area

Principal Investigators: Susan Georgette and Jim Magdanz

Cooperators: none

Funding Source: National Park Service (Gates of the Arctic)

Study Communities: Shungnak and Kobuk

Purposes and Objectives: The purpose of this project is to document the traditional knowledge of whitefish held by Shungnak and Kobuk residents. Whitefish play a major role in the subsistence fishing activities in this area, yet little research has been done on them. This information makes an important contribution to fisheries management. The objectives of the project include: 1) review existing literature; 2) conduct participant-observation field work in upper Kobuk River fish camps; 3) interview 5-10 elders in Shungnak and Kobuk about their knowledge of whitefish; and 4) build community interest in fisheries management by helping residents learn techniques for collecting traditional knowledge.

Methods: Key respondent interviews are the primary data collection method. The interviews are conducted using an interview guide similar to the one developed for the Whitefish TEK in Kotzebue Sound project. Local residents are hired to assist with the research.

Status: Much of the literature review has been completed. The PIs spent a week conducting participant-observation field work in upper Kobuk fish camps in September 2002, documenting whitefish harvest activities through photographs and notes. Six key respondents in Shungnak were interviewed in January 2003. Additional interviews are planned for Shungnak and Kobuk in April 2003. The PIs hope to combine the results of this project and the Whitefish TEK in Kotzebue Sound project into one final report.

Schedule/Milestones:	Additional key respondent interviews	April-July 2003
	Prepare final report	July-September 2003
	End of project	September 30, 2003

Products: A brief progress report was prepared in February 2003 for the National Park Service. A final report summarizing research findings will be prepared at the project's completion.

Prepared by: Susan Georgette

Human-Land Relationships in the Upper Kobuk River Region

Short Title (Code): Kobuk Ethnography (11752511)

Principal Investigator: James Magdanz, Jonas Ramoth (NPS), Eileen Devinney (NPS)

Cooperators: National Park Service, Native Village of Shungnak

Funding Source: NPS (Cooperative Agreement CA9910-99-048)

Study Communities: Shungnak, Kobuk, Ambler

Purposes and Objectives: In the latter 20th century, the upper Kobuk River increasingly was being used by non-local sport hunters supported by transporters (several of whom were local residents) and guides. These activities created conflicts between local and non-local hunters, and among families in the study communities. The purpose of this project was to better understand those conflicts by documenting land use and settlement patterns on the upper Kobuk River in the twentieth century, and by exploring how and why local residents' uses changed from purely subsistence uses to a mixed subsistence-commercial (i.e. transporter) uses. The project was planned for five years, but NPS funded only three years.

Methods: In a series of structured interviews with elder key respondents, researchers identified significant places in each elder's life, and gathered information about the people, activities, and events at each place. Sites were located on USGS maps. Researchers collected genealogies for each key respondent, and supplemented those with additional genealogical data from other elders in the community. Interviews were conducted in the Iñupiaq language by a fluent researcher (Ramoth), or by a contract translators from the respondent's own communities. Additional key respondent interviews were conducted with other local residents involved in the conflicts. A project report was prepared summarizing data gathered each year of the project.

Status: Elder interviews from all three years of the project have been completed, digitized, and translated. Two additional key respondent interviews are yet to be transcribed. The first progress report was published in October 2000. Second progress report is complete except for the life history summaries. Third progress report is in progress.

Schedule/Milestones:	Final Progress Report, Year 2	June 15, 2003
	Final Progress Report, Year 3	June 15, 2003

Products: Three summary reports of interviews, and supporting materials: audio tapes, translations or transcriptions of interviews, maps, and photographs of respondents.

Prepared by: James Magdanz

The Production and Distribution of Wild Food in Shungnak, Alaska

Short Title (Code): Shungnak Survey (11753024)

Principal Investigators: James Magdanz, Ron Pacoriek, Ken Adkisson (NPS), Eileen Devinney (NPS)

Cooperators: National Park Service, Native Village of Shungnak

Funding Source: NPS Cooperative Agreement H979102K171

Study Communities: Shungnak

Purposes and Objectives: This project collects data on demographics, economics, wild food harvests, wild food distribution, and social networks in Shungnak. The project is designed in three phases. The first phase collects the data and summarizes basic demographic, economic, and harvest data in the Division's Community Profile Database format. The second phase analyzes the social network data and produces a draft report of network analysis findings. The third phase produces a technical paper summarizing the results of phases 1 and 2. Progress through the phases is dependent upon the availability of funding and results from previous phases.

Methods: Data were collected through a comprehensive community survey. Survey data will be entered in Microsoft Access and exported to the Statistical Program for the Social Sciences (SPSS). Network data will be analyzed in SPSS and UCI-Net (network analysis software).

Status: Community approval obtained in November, 2002. Cooperative Agreement between ADF&G and Native Village of Shungnak signed in January, 2003. Survey administration completed on February 8, 2003. Surveys are being coded in preparation for data entry. Budget information in support of additional funds for phase 2 submitted to NPS in January 2003.

Schedule/Milestones: Survey Approval, Coop. Agreement	December, 2002
Survey Administration	January, 2003
Data Entry and Analysis	June 30, 2003
Prepare CPDB Tables	August 1, 2003
Prepare Summary Report	September 30, 2003
Begin Phase 2 (pending funding)	October 1, 2003

Products: Phase 1 products include CPDB tables and a short summary report. Phase 2 products are expected to SPSS and UCI-NET tables, graphs, and charts illustrating network findings, and a report discussing those findings. Phase 3 products are expected to include a technical paper summarizing findings of phase 1, on harvests, and of phase 2, on social networks.

Prepared by: James Magdanz

Customary Trade in Fish in the Seward Peninsula

Short Title (Code): Customary Trade (not yet funded)

Principal Investigators: James Magdanz, Sandra Tahbone (Kawerak)

Cooperators: Kawerak

Funding Source: FIS

Study Communities: Unalakleet, Shaktoolik, Brevig Mission, Nome

Purposes and Objectives: Researchers will identify communities in the Norton Sound-Port Clarence Area where customary trade is known to occur, and secure permission from community governments in four communities to conduct customary trade research. Selected communities will vary in size and location. In the study communities, researchers will identify two samples: producers (individuals who sell fish in customary trade) and consumers (individuals who purchase fish in customary trade). Respondents will be asked to complete a survey to determine the species, amounts, processing methods, and sources of fish involved in customary trade. Selected respondents will be interviewed in more detail about their personal involvement in customary trade, and the history and nature of customary trade in their communities.

Methods: Household survey, key respondent interview

Status: Unfunded. Investigation plan is in preparation for May 15, 2003 deadline.

Schedule/Milestones: April 1, 2004 – December 31, 2006

Products: Technical Paper and community summary reports

Prepared by: James Magdanz

Subsistence Salmon Harvests in Seward Peninsula Communities

Short Title (Code): (not yet funded)

Principal Investigators: Susan Georgette, Sandra Tahbone (Kawerak), Enoch Shiedt (Maniilaq)

Cooperators: Kawerak, Maniilaq

Funding Source: FIS

Study Communities:

Purposes and Objectives: This project proposes to document one year of subsistence salmon harvests in four Seward Peninsula communities that have not been included in the annual northwest subsistence salmon surveys. The four communities are Wales, Shishmaref, Deering, and Buckland. The survey instrument and methodology will be similar to that currently used to document subsistence salmon harvests in other communities in the region. Following data collection and analysis, researchers propose to return to the study communities in the second year of the project to present and discuss research results and to gather traditional ecological knowledge on salmon abundance and trends to provide a context for the harvest data.

Methods: Household survey, key respondent interview

Status: Unfunded. Investigation plan is in preparation for May 15, 2003 deadline.

Schedule/Milestones: April 2004 – April 2006

Products: Project summary report, Additions to Statewide Fisheries Database

Prepared by: Susan Georgette

Approaches to Sustainable Fisheries Harvest Assessment in the Northwest Arctic

Short Title (Code): Assessment Approaches (not yet funded)

Principal Investigators: Susan Georgette, Enoch Scheidt (Maniilaq)

Cooperators: Maniilaq

Funding Source: FIS

Study Communities:

Purposes and Objectives: This project addresses the issue of Harvest Monitoring Design, how to conduct data collection on subsistence harvests by local tribal groups. This project will not collect actual harvest data, but instead will address the larger picture of how to develop a long-term, sustainable approach to fisheries harvest assessment in the Northwest Arctic that will be supported by tribal groups, as discussed in the Fisheries Harvest Assessment workshop in Kotzebue in November 2002.

Methods: Meetings, Workshops

Status: Unfunded. Investigation plan is in preparation for May 15, 2003 deadline.

Schedule/Milestones: April 1, 2004 – December 31, 2006

Products: Presentation on harvest assessment. Written summaries of each meeting. Working document outlining possible long-term approaches to fisheries harvest assessment in the region.

Prepared by: Susan Georgette

The Production and Distribution of Wild Food: Northern Seward Peninsula

Short Title (Code): Northern Seward Peninsula Survey (11753024)

Principal Investigators: James Magdanz, Ron Pacoriek, Ken Adkisson (NPS)

Cooperators: National Park Service, Native Village of Shungnak

Funding Source: Unfunded

Study Communities: One northern Seward Peninsula community to be determined

Purposes and Objectives: This project will collect data on demographics, economics, wild food harvests, wild food distribution, and social networks in one northern Seward Peninsula community. The project is designed in three phases. The first phase collects the data and summarizes basic demographic, economic, and harvest data in the Division's Community Profile Database format. The second phase analyzes the social network data and produces a draft report of network analysis findings. The third phase produces a technical paper summarizing the results of phases 1 and 2. Progress through the phases is dependent upon the availability of funding and results from previous phases. This is the same basic design used for Shungnak in 2002.

Methods: Data will be collected through a comprehensive community survey. Survey data will be entered in Microsoft Access and exported to the Statistical Program for the Social Sciences (SPSS). Network data will be analyzed in SPSS and UCI-Net (network analysis software).

Status: A Cooperative Agreement is being developed between the Division, the National Park Service, the Institute of Social and Economic Research (ISER) at the University of Alaska, and the University of Washington Ecological Studies Unit (ESU).

Schedule/Milestones: 2003-2005

Products: Phase 1 products include CPDB tables and a short summary report. Phase 2 products are expected to SPSS and UCI-NET tables, graphs, and charts illustrating network findings, and a report discussing those findings. Phase 3 products are expected to include a technical paper summarizing findings of phase 1, on harvests, and of phase 2, on social networks.

Prepared by: James Magdanz

**Summary of
Personnel Allocations by Project**

Months Work Budgeted by Project (INCOMPLETE)

	FY 2003 (Actual)		FY 2004 (Planned)		FY 2005 (Planned)	
	SEG	JSM	SEG	JSM	SEG	JSM
General Fund Projects						
Northwest Subsistence		2.0 mos.		2 mos.		
Northwest Public Service	2.0 mos.		2 mos.			
Board Preparation		2.0 mos.		2 mos.		
Harvest Assessment Projects						
NW Salmon	1.0 mos.					
NW Fisheries	1.75 mos.					
NW Caribou						
Cooperative Research Projects						
Whitefish TEK						
Kobuk Whitefish				1 mo.		
Kobuk Ethnography				0.75 mo.		
Shungnak Survey				1 mo.		
Proposed Projects						
Customary Trade				2 mos.		3 mos.
Seward Peninsula Salmon						
Assessment Approaches						
Seward Peninsula Survey				2 mos.		
Total Months						

**List of
Subsistence Technical Papers on NW Alaska**

NW Technical Papers

Burch, Ernest S. Jr.

1985 *Subsistence Production in Kivalina, Alaska: A 20-Year Perspective*. Technical Paper No. 128.

Conger, Annie Olanna, and James S. Magdanz

1990 *The Harvest of Fish and Wildlife in Three Alaska Communities: Brevig Mission, Golovin, and Shishmaref*. Technical Paper No. 188

Ellanna, Linda J.

1983 *Bering Strait Insular Eskimo: A Diachronic Study of Ecology and Population Structure*. Technical Paper No. 77.

1983 *Technological and Social Change of Marine Mammal Hunting Patterns in Bering Strait*. Technical Paper No. 79.

Ellanna, Linda J., and George K. Sherrod

1984 *The Role of Kinship Linkages in Subsistence Production: Some Implications for Community Organization*. Technical Paper No. 100

Georgette, Susan E.

1999 *Brown Bears on the Northern Seward Peninsula: Traditional Knowledge and Subsistence Uses in Deering and Shishmaref*. Technical Paper No. 248.

2000 *Subsistence Use of Birds in the Northwest Arctic Region, Alaska*. Technical Paper No. 260.

Georgette, Susan E., and Hannah Loon

1988 *The Noatak River: Fall Caribou Hunting and Airplane Use*. Technical Paper No. 162.

1990 *Subsistence and Sport Fishing of Sheefish on the Upper Kobuk River, Alaska*. Technical Paper No. 175

1991 *Subsistence Sheep Hunting in Northwest Alaska*. Technical Paper No. 208

1993 *Subsistence Use of Fish and Wildlife in Kotzebue, A Northwest Alaska Regional Center*. Technical Paper No. 167

Loon, Hannah, and Susan E. Georgette

1989 *Contemporary Brown Bear Use in Northwest Alaska*. Technical Paper No. 163

Magdanz, James S.

1992 *Subsistence Salmon Fishing Permit in the Nome Subdistrict and Portions of the Port Clarence District*. Technical Paper No. 220

Magdanz, James S., and Annie Olanna

1984 *Controls on Fishing Behavior on the Nome River*. Technical Paper No. 102

1985 *Bering Sea Subsistence King Crab Fishery*. Technical Paper No. 117.

1986 *Subsistence Land Use in Nome, A Northwest Alaska Regional Center*. Technical Paper No. 148

Magdanz, James S., Sandra Tahbone, Kurt Kamletz, and Austin Ahmasuk

2002 *Subsistence Salmon Fishing by Residents of Nome, Alaska, 2001*. Technical Paper 274.

**List of
Subsistence Technical Papers on NW Alaska**

- Magdanz, James S., Charles J. Utermohle, and Robert J. Wolfe
2002 *The Production and Distribution of Wild Food in Wales and Deering, Alaska*. Technical paper 259.
- Paige, Amy W., Cheryl L. Scott, David B. Andersen, Susan Georgette, and Robert J. Wolfe
1996 Subsistence Use of Birds in the Bering Strait Region, Alaska. Technical Paper No. 239.
- Schroeder, Robert, David B. Andersen, and Grant Hildreth
1987 Subsistence Use Area Mapping in Ten Kotzebue Sound Communities. Technical Paper No. 130.
- Sherrod, George K.
1982 The Harvest and Use of Marine Mammals in Fifteen Eskimo Communities. Technical Paper No. 56.
- Sobelman, Sandra S.
1984 Background Paper on Subsistence Salmon Fishery, Inmachuk River, Deering. Technical Paper No. 110.
1984 The Economics of Wild Resource Use in Shishmaref, Alaska. Technical Paper No. 112.
- Thomas, Daniel C.
1981 Norton Sound-Bering Strait Subsistence King Crab Fishery. Technical Paper No. 12.
1982 The Role of Local Fish and Wildlife Resources in the Community of Shaktoolik, Alaska. Technical Paper No. 13.
- Wolfe, Robert J., James A. Fall, Virginia Fay, Susan Georgette, James S. Magdanz, Sverre Pedersen, Mary C. Pete, and Janet Schichnes (contributors)
1986 The Role of Fish and Wildlife in the Economies of Barrow, Bethel, Dillingham, Kotzebue, and Nome. Technical Paper No. 154.